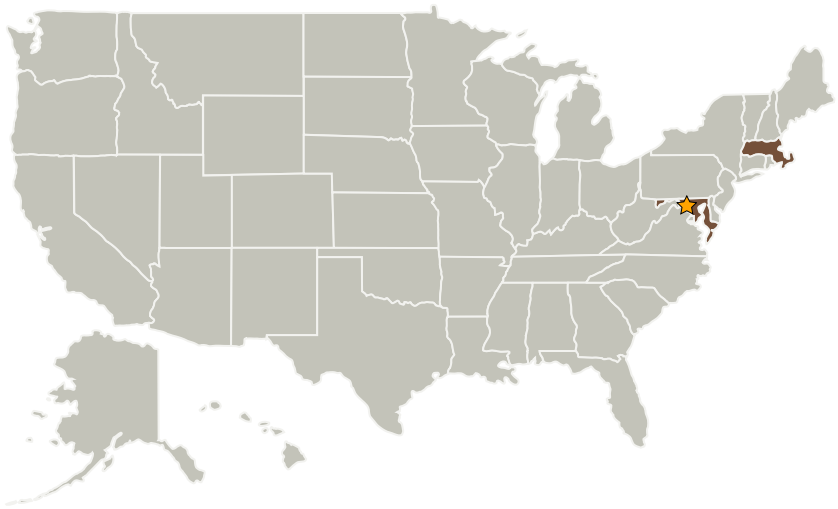
High-Rate Receiver Design, Phase I

Completed Technology Project (2008 - 2008)

Project Introduction

We propose an initial architectural and preliminary hardware design study for a high-rate receiver capable of decoding modulation suites specified by CCSDS 413.0-G-1 April 2003 (www.ccsds.org) and new advanced modulation suites. We propose to detail a design which can provide a throughput of greater than 300 Mbits/sec and 7 bits/sample output.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Goddard Space Flight Center(GSFC)	Lead Organization	NASA Center	Greenbelt, Maryland
Innovative Communications Engineering	Supporting Organization	Industry	N. Chelmsford, Massachusetts

Primary U.S. Work Locations	
Maryland	Massachusetts

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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Goddard Space Flight Center (GSFC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

William Greenberg

Technology Areas

Primary:

- TX05 Communications, Navigation, and Orbital Debris Tracking and Characterization Systems
  - TX05.1 Optical Communications
    - TX05.1.7 Innovative Signal Modulations